REMARKS

INTRODUCTION:

In accordance with the foregoing, claims 1 and 20-24 have been amended, and claim 4 has been cancelled without prejudice or disclaimer. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1, 5-6 and 20-24 are pending and under consideration. Reconsideration is respectfully requested.

REJECTION UNDER 35 U.S.C. §103:

A. In the Office Action, at pages 2-4, numbered paragraph 3, claims 1, 4-6, 21, 23, and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Fuse et al. (USPN 5,045,421; hereafter, Fuse) in view of Itoh et al. (USPN 5,013,623; hereafter, Itoh) and Mott et al. (USPN 6,066,426; hereafter, Mott). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Independent claims 1, 21, 23 and 24 have been amended to include the terminology "wherein an amount of the first charge transport compound is in a range of 30-90% by weight based on a total weight of the first and the second charge transport compounds." Claim 4 has been cancelled without prejudice or disclaimer.

It is respectfully submitted that the present invention provides a double-layered positively-charged electrophotographic organic photoreceptor with a charge generating layer and a charge transport layer that have effective interfacial properties for charge transfer.

In conventional double-layered positively-charged electrophotographic organic photoreceptors, the solid interface between the charge transport layer and the charge generating layer hinders charges generated in the charge generating layer by laser irradiation from entering the charge transport layer. As a result, a surface potential in the irradiated portion cannot drop sufficiently, and an exposure potential increases with repeated electrophotographic processes.

In the present invention, the amount of the first charge transport compound, with respect to the total amount of the first and second charge transport compounds, in the charge transport layer composition is in a range of 30-90% by weight. By using this range, the interface properties are controlled because if a ratio of a first charge transport compound amount to a second charge transport compound amount is too small, the interface between the charge generating layer and the charge transport layer is too solid for charges to enter the charge transport layer. If the ratio is too high, an excess of the first charge transport compound may dissolve in the acetate solvent in a charge generating layer forming composition.

It is respectfully submitted that Fuse, Itoh, and/or Mott, alone or in combination, do not teach or suggest utilizing an amount of the first charge transport compound that is in a range of 30-90% by weight based on a total weight of the first and the second charge transport compounds.

Thus, amended independent claims 1, 21, 23 and 24 of the present invention are submitted to be patentable under 35 U.S.C. §103(a) over Fuse et al. (USPN 5,045,421) in view of Itoh et al. (USPN 5,013,623) and Mott et al. (USPN 6,066,426), alone or in combination. Since claims 5-6 depend from amended claim 1, claims 5-6 are submitted to be patentable under 35 U.S.C. §103(a) over Fuse et al. (USPN 5,045,421) in view of Itoh et al. (USPN 5,013,623) and Mott et al. (USPN 6,066,426), alone or in combination, for at least the reasons that amended claim 1 is patentable under 35 U.S.C. §103(a) over Fuse et al. (USPN 5,045,421) in view of Itoh et al. (USPN 5,013,623) and Mott et al. (USPN 6,066,426), alone or in combination.

B. In the Office Action, at pages 4-5, numbered paragraph 4, claims 20 and 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Swanke (USPN 3,619,050; hereafter, Swanke) in view of Fuse et al. (USPN 5,045,421; hereafter, Fuse) and Itoh et al. (USPN 5,013,623; hereafter, Itoh). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Independent claims 20 and 22 have been amended to include the terminology "wherein an amount of the first charge transport compound is in a range of 30-90% by weight based on a total weight of the first and the second charge transport compounds."

As noted above, the present invention provides a double-layered positively-charged electrophotographic organic photoreceptor with a charge generating layer and a charge transport layer that have effective interfacial properties for charge transfer, which differs from the interfacial properties of conventional double-layered positively-charged electrophotographic organic photoreceptors.

In conventional double-layered positively-charged electrophotographic organic photoreceptors, the solid interface between the charge transport layer and the charge generating layer hinders charges generated in the charge generating layer by laser irradiation from entering the charge transport layer. As a result, a surface potential in the irradiated portion cannot drop sufficiently, and an exposure potential increases with repeated electrophotographic processes.

Thus, in the present invention, the amount of the first charge transport compound, with respect to the total amount of the first and second charge transport compounds, in the charge transport layer composition is in a range of 30-90% by weight. By using this range, the interface properties are controlled because if a ratio of a first charge transport compound amount to a second charge transport compound amount is too small, the interface between the charge generating layer and the charge transport layer is too solid for charges to enter the charge transport layer. If the ratio is too high, an excess of the first charge transport compound may dissolve in the acetate solvent in a charge generating layer forming composition.

It is respectfully submitted that Swanke, Fuse, and/or Itoh, alone or in combination, do not teach or suggest utilizing an amount of the first charge transport compound that is in a range of 30-90% by weight based on a total weight of the first and the second charge transport compounds.

Hence, it is respectfully submitted that amended independent claims 20 and 22 are patentable under 35 U.S.C. §103(a) over Swanke (USPN 3,619,050) in view of Fuse et al. (USPN 5,045,421) and Itoh et al. (USPN 5,013,623), alone or in combination.

DOUBLE PATENTING:

In the Office Action, at page 5, numbered paragraph 5, claims 1 and 6 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of copending Application No. 10/674,786.

Since U.S. Patent Application No. 10/674,786 has not yet been issued as a patent, and since the all of the claims of the instant application have not yet been indicated as allowable except for the provisional rejection, it is believed that any submission of a Terminal Disclaimer or arguments as to the non-obvious nature of the claims would be premature. MPEP 804(I)(B). As such, it is respectfully requested that the applicants be allowed to address any obviousness-type double patenting issues remaining once the rejection of the claims under 35 U.S.C. §103 is resolved or on allowance of U.S. Patent Application No. 10/674,786.

EXAMINER'S RESPONSE TO ARGUMENTS:

In the Office Action, at pages 6-8, the Examiner presented responses to Applicants' arguments filed February 3, 2006.

In view of the amendments to the independent claims of the present invention, it is respectfully submitted that the amended independent claims 1 and 20-24, together with the claims dependent thereon, are patentable over the cited references (see above). Even when the cited references are combined, the combined references do not teach or suggest the specified combinations of the first and second recited charge transport compounds that provide the effective interfacial properties for charge transfer of the present invention.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: Darleen J Stockley
Darleen J. Stockley
Registration No. 34,257

1201 New York Avenue, N.W.
Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501